

JAYDEN KOH

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• Citizenship: U.S. Citizen

EDUCATION

Texas A&M University

Bachelor of Science in Computer Engineering, Minor in Mathematics

Expected Graduation: May 2027

GPA: 3.78

RELEVANT COURSEWORK

Data Structures & Algorithms, Computer Systems, Computer Architecture, Software Engineering, Electrical Signals & Systems, Communications & Cryptography, Embedded Systems Security, Hardware Security, Linear Algebra

SKILLS

Linux, Windows, C/C++, x86, ARM, RISC-V, GDB, Bash, Python, Shell, Git, GitHub, Docker, Kubernetes, CMake/Makefiles, Information Systems, Machine Learning, Computer Microarchitecture, Generative AI, Cybersecurity

EXPERIENCE

TAMU Cybersecurity

May 2025 – Present

Software Developer

College Station, Texas

- Scaled platform infrastructure using **Docker and automated deployments** for CTF competitions, **supporting 300+ teams**.
- Integrated **web3 infrastructure** with existing CTF framework supporting Solidity smart contracts for the Ethereum blockchain.

Secure and Trustworthy Hardware Lab

Aug 2024 – Present

Hardware Security Researcher

College Station, Texas

- Published paper discovering 6+ **system-level vulnerabilities** with technical write-ups and exploits on RISC-V processors.
- Integrated hardware simulation software with hardware fuzzing framework for **open-source processors** on the Chipyard toolchain.
- Developed software architecture for **hardware acceleration** utilizing **zero-knowledge proofs**, improving hardware performance.
- Curated **hardware vulnerability database** alongside data collection framework for a **Retrieval Augmented Generation LLM**.

MIT Lincoln Laboratory

May 2023 – Aug 2024

Security Engineer

Boston, Massachusetts

- **Led a team of 8 instructors**, mentoring students to complete **30+ labs on embedded security**, increasing completion rate to 150%.
- Directed 16 teams to develop a **secure remote firmware service** with an A/D CTF competition, increasing deployments by 200%.
- Designed **15 hands-on educational projects and labs** on advanced cryptographic and malware security vulnerabilities.

PROJECTS

CTF Organizer | Cybersecurity, Blockchain, Docker, Kubernetes | [Link](#)

- Founded, organized, and hosted numerous annual online CTF tournaments, supporting over **1000 teams** across **30+ countries**.
- Maintained and managed **live production infrastructure** during competitions, ensuring system stability and resolving timely issues
- Authored multiple **reverse engineering and cryptography challenges** and **exploits** for various prestigious competitions.

ComSec Rankings | React, Middleware Architecture, Cloud Service | [Link](#)

- Developed academic **cybersecurity data visualization platform** tracking research trends, guiding future projects and papers.
- Collected and parsed **20+ years of open-source publications** to rank universities and companies by research performance.

Ethernaut Writeups | Solidity, Ethereum, Security Audit | [Link](#)

- Developed exploits for **25+ Ethereum smart contract** challenges using Solidity, improving the security of decentralized apps.
- Engineered and analyzed **exploit scenarios** including reentrancy, flash loan exploits, signature replay, proxy misconfigurations, liquidity manipulation, ABI edge cases, and compiler version mismatches, deepening understanding of **smart contract security**.

TAMUhack 1st Place | React, NoSQL, Web Serial Communication | [Link](#)

- Won 1st place for “Best Medical Hack” by leveraging **hardware design** with software for a medical solution with real-world impact
- Developed **prescription distribution solution** integrating patient-side dispenser with pharmacist-side **automation service**.

LangGuessr! Game | React, Dynamic API Integration | [Link](#)

- Developed a web-based language identification game leveraging content from **300+ Wikipedia language domains**.
- Engineered a **dynamic data pipeline** to source authentic, human-written text, ensuring linguistic diversity and **content integrity**.
- Deployed a **scalable, cloud-based production system** with load balancing, delivering **low-latency responses** and high availability.

TAMU Datathon 1st Place | React, Blockchain, Zero-Knowledge Proofs | [Link](#)

- Won 1st place for “Best Use of Midnight” by architecting a **secure blockchain solution** with the most creative design.
- Engineered a decentralized application **leveraging zk-SNARKS** on the Midnight blockchain, maintaining **platform integrity** while **ensuring voter confidentiality** through zero-trust architecture.